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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,467	10/21/2003	Prakasa R. Anantancni	81,614	4834

7590 05/20/2004  
Huntsman LLC  
Legal Department  
P.O. Box 15730  
Austin, TX 78761

EXAMINER

VOLLANO, JEAN F

ART UNIT	PAPER NUMBER
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1621

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/690,467	<b>Applicant(s)</b> ANANTANENI ET AL.	
	<b>Examiner</b> Jean F. Vollano	<b>Art Unit</b> 1621	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.  
     4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)<br>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____.<br>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)<br>6) <input type="checkbox"/> Other: _____. |
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## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claim 1 , drawn to a process of preparing known ether sulfonates, classified in class 562, subclass 108, 110, 111, 115 etc.
- II. Claim 2, drawn to a composition useful for cleaning which includes two components, classified in class 510, subclass various.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions they have different functions. Group I is drawn to a process for the preparation of ether sulfonates some of which are known compounds. Group II is drawn to a composition of matter. The first component is an ether sulfonate and the second is from a list of reagents. The composition is used for cleaning. The composition is not being made by the process of Group I nor is the process of Group I even related to a composition. There are two different and distinct processes which are found in two different classes and an on-line search for the process in Group I would not cover the composition in full. Nor would a search for the composition cover the process being claimed.

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Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr Christopher J. Whewell on May 18, 2004 a provisional election was made with traverse to prosecute the invention of Group I, claim 1. Affirmation of this election must be made by applicant in replying to this Office action. Claim 2 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Priority***

1. It is noted that this application claims priority to two provisional documents 60/420 238 filed 10/22/2002 and 60/420,362 filed 10/22/2002. The reference to the prior applications are found in an application data sheet (37 CFR 1.76) as required for priority of the filing date of the prior applications under 35 U.S.C. 119(e).

***Claim Rejections - 35 USC § 112***

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 has a flow diagram or a scheme which has two reagents to give some products. However there is no steps defined and the arrows and plus signs do not give the metes and bounds that are being claimed. A scheme is not a proper way to recite a process. The + sign may mean to mix or may mean to add by some particular method. The general idea is conveyed but the metes and bounds of the process are not. The scheme is therefore confusing as to the metes and bounds which are being claimed in the instant invention. The structures can be used as A, B, C etc and then a narrative to describe the reaction conditions. Also in the scheme has an M on the product side which is not found on the reactant side. When M is H this is clear but when M is Li, Na, etc there is no metal on the reactant side to get the metal salt and therefore the claim is confusing as to how a metal salt is being produced. Even the wording of the last 3 lines does not

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talk about how the isethionic acid gets a metal in the product. The examiner notes that the term haloderivative is okay to the extent that the claim is referring to the structure where X is chloride or bromide but the term halo derivative is broader and it is unclear if the claim is claiming only a chloro or bromo substituent in place of the OH on the isethionic acid. Also the R1 and R2 would have to be hydrogen for the claim to read on isethionic acid and therefore there is another conflict as to what is the starting material the scheme has other acids besides isethionic acid, the wording doesn't. The wording is confusing with respect to the scheme. The claim is vague and indefinite as to what applicant considers as the instant process.

The examiner will use the broadest term in the case of the formation of the  $\text{SO}_3\text{M}$  (when M is not H) since it is not given at all in the claim. The examiner will also use the acids or bromide or chloride version of  $\text{XCH(R}_2\text{)CH(R}_3\text{)SO}_3\text{H}$  wherein R2 and R3 are defined H or other than H (which is not isethionic acid).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Schenck et al (DE1234708).

Schenck teaches a process for the preparation of ether sulfonic acid sodium and potassium salts by reacting a primary alcohol with methyl or ethyl or other alkyl isethionic acid (

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i.e. R2 is CH3 or ethyl) to form the product. ( see the attached abstract and Beispiel 1, (tridecylacohol) ;Beispiel 3, (ethylbutylalcohol); Beispiel 4, (ethanol); Beispiel 5, ).

Schenck teaches that the process can also prepare multiple ether sodium sulfonate by reacting a primary alcohol 1-octadecanol with ethylene oxide and then with sodium butylisethionate ( the process is comprising and there can be additional steps ) See example (Beispiel 7).

When Schenck teaches atmospheric pressure (i.e. 760mm Hg) and a temperature range of 140-200<sup>0</sup>C then the claims is fully anticipated.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Delpy et al ( US 5,523,471).

Delpy et al teaches a process for the preparation of ether sulfonates by reacting a sodium or potassium salt of the formula of HO-CR<sub>4</sub>R<sub>4</sub>'CR<sub>5</sub>CR<sub>5</sub>'-SO<sub>3</sub>M (isoethionic acid where R<sub>4</sub> R<sub>4</sub>' R<sub>5</sub> R<sub>5</sub>' are hydrogen or 1-4 C alkyl) with a primary alcohol which ether has a ether linkage or doesn't have an ether linkage at atmospheric pressure and at a temperature from 150<sup>0</sup>C to 250<sup>0</sup>C.(See examples and abstract and claims and attached abstract)

When Delpy et al exemplifies the preparation in examples 3-5 then the claims is fully anticipated.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Subramanyam et al ( US 5,683,970)

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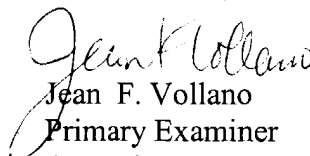
Subramanyam teaches a process for preparing compounds found in instant claim 1 which include alkali metal, alkaline earth metal salts see abstract and column 1 and 2.

Subramanyam teaches the compounds are prepared by reaction of a primary alcohol the bromide of the  $\text{BrCH}_2\text{CH}_2\text{SO}_3$  and exemplifies the sodium salt. (see column 1 and column 2) . When teaches that the temperature is from  $50^\circ\text{C}$  to  $90^\circ\text{C}$  then the claim is fully anticipate (see column 2, lines 28-29.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean F. Vollano whose telephone number is 571-2720648. The examiner can normally be reached on Monday-Thursday 6:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272- 0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jean F. Vollano  
Primary Examiner  
Art Unit 1621

May 18, 2004